DOCUMENT RESUME

ED 226 374 CS 207 384

AUTHOR Stacks, Don W.; And Others
TITLE Syntactic Language Correlates of Written Communication Apprehension.
PUB DATE Mar 83
NOTE 24p.; Paper presented at the Annual Meeting of the Southwest Division of the American Business Communication Association (Houston, TX, March 10-12, 1983).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Business Communication; College Students; Evaluation Methods; Higher Education; *Language Usage; *Measurement Techniques; *Models; Multidimensional Scaling; *Predictor Variables; Student Problems; Syntax; Technical Writing; *Test Construction; *Writing Apprehension; Writing Research

ABSTRACT

A study provided the initial test of a multidimensional instrument based on the idea that syntactic language choice might predict writing apprehension. The test measured six factors: (1) blank page paralysis, (2) general affect toward writing, (3) positive/negative business affect, (4) alternative modes, (5) attitude toward writing competence, and (6) attitude toward professional writiny skills. Subjects, 59 undergraduate college students enrolled in business communication courses, completed the instrument and an assignment requiring them to write a business letter responding to a problem. Computer analysis of the letters revealed that five of the six factors had syntactic language variables significantly predicting writing apprehension. Although further refinement is needed, these results indicate that the instrument could be used to identify general writing apprehension and to diagnose specific problems. (Includes copies of the instrument and the writing assignment.) (JL)

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SYNTACTIC LANGUAGE CORRELATES OF WRITTEN COMMUNICATION APPREHESION

Don W. Stacks
Department of Communication

Robert W. Boozer
Department of Management

Tim D.P. Lally
Department of English

University of South Alabama
Mobil, Alabama
36688

(205) 460-6301

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Don W. Stacks, University of South Alabama
Robert W. Boozer, University of South Alabama
Tim D.P. Lally, University of South Alabama

ABSTRACT

Mathematical models of business writing apprehension are presented as the first test of a new instrument for measuring writing apprehension. Five of six factors identified as composing the construct, writing apprehension, were found to have syntactic language variables significantly predicting writing apprehension. The total instrument also yielded significant syntactic language variables. The results are discussed in terms of signicance to business writing courses.

INTRODUCTION

One of the major fears that people have is the fear of communication. Although there has been an interest in the area of oral communication apprehension for some time, only recently have educators begun to express interest in the fear or apprehension of written communication. The majority of research in this area, however, has taken a unidimensional approach to the identification of who is apprehensive about writing. This approach may not adequately operationalize writing apprehension. The purpose of this study is to provide an initial test of a multidimensional model of written communication apprehension as the construct relates to syntactic language use.

The major instrument used to ascertain written communication apprehension has been that developed by Daly and Miller [9]. This instrument consists of 20 statements reacted to on a Likert-like scale. It has a high reported reliability estimate (usually .85 and above) and has been used rather extensively. However, Boozer, Lally, and Stacks [1] and others [2; 3; 4] question the construct integrity of the measure. Specifically, they note that writing apprehension may be the result of a number of factors, to include attitude toward writing and the more behavioral manifestations. Boozer, Lally, and Stacks present a multi-

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*This research was supported by a grant from the University of South Alabama Research Committee.

dimensional instrument which contains many of Daly and Miller's original statements and others. They report a six-factor solution and argue that it better represents writing apprehension than the unidimensional instrument.

What constitutes writing apprehension and what aspects the writer contributes to writing apprehension have been investigated. The results, however, have not lead to any major pedagogical change in the teaching of writing. In most cases, the research has been generalized; that is, the subjects were enrolled in freshman composition courses and not representative of a single group. It would be of interest to the business communication educator, for example, to establish how the business communication student perceives and behaves according to his/her apprehension toward writing. What we do know of writing apprehension in general comes mainly from the work of Daly. Daly and his associates have found that writing apprehension is predictive of occupational and academic choice, to include perceptions of occupation and course of study desirability [11; 12], enrollment in writing courses [9], writing style in terms of intensity of language used [10], and a number of satisfaction indices [9; 18]. Hence, writing apprehension has a demonstrated effect on general perceptions of importance to the individual writer.

What we know about the structure of writing suggests that high apprehensive writers write differently than low apprehensive writers. In this regard, low apprehensives score higher on indices of grammar, mechanics, and general skill [8]. Low apprehensives use more words in their writing, more qualification, and choose to write with higher language intensity than do high apprehensives [14]. Faigley, Daly and Witte [14] found that indices measuring syntactic development were also affected by writing apprehension. Specifically, they found significant differences in syntactic "fluency" or "maturity" as measured by the length of T-units [16] and clause length between high and low apprehensive writers. Significance was almost obtained for two other indices of syntactic fluency: the ratios of T-units with final nonrestrictive modifiers to total T-units and number of words in final nonrestrictive modifiers to total number of words ($p < .07$). However, these findings were highly dependent upon the type of message written. For an argumentative essay none of the syntactic indices were significant; for a personal narrative/descriptive essay, however, significant results were obtained for number of words per T-unit, number of words in final nonrestrictive modifiers, and T-units with final nonrestrictive modifiers.

This body of research suggests that syntactic language choice may be a significant predictor of writing apprehension. If it is and it can be demonstrated that low and high writing apprehensives differ in their syntactic choice, then pedagogical tools could be derived to impact on writing apprehension. In the business world many written communications tend toward the narrative, simple responses to some stimulus that do not bring into account the argumentative form of discourse or, where argumentative, policy and procedures yield a more descriptive writing style. Given this, it follows that syntactic choice might predict writing apprehension. This study is a further exploration of writing

competency (as measured by actual syntactic choice) in a business situation. Further, it is the initial test of the multidimensional measure of writing apprehension developed by Boozer, Lally, and Stacks [1].

Instrument Development

The writing apprehension instrument developed by Boozer, Lally, and Stacks [1] consisted of 64 items including 21 from the Daly and Miller [9] Writing Apprehension Test (WAT) and 38 other statements covering a number of attitudes toward business communication. The instrument asked each subject to respond to the statements on a strongly agree to strongly disagree, 5-point, Likert-like scale. All statements were randomly listed and presented to 428 undergraduate students enrolled in a number of courses and disciplines at the University of South Alabama. The sample crossed both college and discipline and was representative of students just enrolling to those who have been in college for a number of years. Thus, a valid cross-sampling of students was obtained.

Data were then submitted to a principle components factor analysis with both varimax and oblique rotations. An eigenvalue of 1.0 was the criterion used as the cut-off for rotation and only those factors that loaded above ±.60 and which had no secondary loadings greater than ±.40 were considered for inclusion in the instrument. Comparison of the oblique and varimax rotations yielded identical results: six factors meeting the loading criteria with only modest interfactor correlations. Consequently, the six factors were treated as orthogonal. (The six-factor instrument is reported at Appendix A, the factor solutions have been presented elsewhere [1].)

METHOD

Subjects

Subjects were 59 undergraduate students enrolled in business communication courses at the University of South Alabama. Subjects completed the instrument, other forms, and tasks as a regularly scheduled part of the courses they were enrolled in.

Procedures

Each subject completed the writing apprehension instrument during the first week of the quarter. After approximately one week's time, subjects were given a written assignment to complete. The assignment asked that each write a business letter responding to a problem. Subjects were provided with all the necessary background data for the business letter (see Appendix B). After the letters were collected they were coded by two upper-division English majors and were submitted to computer analysis.

The computer program, Syntactic Language Choice Analysis (SLCA)

[7] is a system that provides profiles of language reflecting basic psychological and cognitive states. The program analyzes the grammatical characteristics of a message in terms of eight qualities of language: social perception, sensation, existence, motion, disposition, time, symmetry, and conditionality. Operationalization of each quality is based on three categories of language behavior: information units (nouns), qualitative-quantitative units (adverbs and adjectives), and relations (verbs). Relative densities are calculated for each category as ratios of the number of particular units divided by the total number of units [6]. The operationalization is summarized as follows:

Summary of Syntactic Choice

a. Information Unit Density: the relative frequency of occurrence of nouns which function as subjects and objects of verbs in a message
b. Relational Density: the relative frequency of occurrence of verbs or verb phrases in the message
c. Qualitative-Quantitative Density: the relative frequency of occurrence of modifiers (adverbs and adjectives) in the message
d. Perceptual Cognitive Activity: The total number of (a), (b), and (c) which represents the individual's perceptual activity as revealed in their language behavior.

Social Perception

a. Inanimate Perception: relative frequency of subjects and objects as verbs which refer to that which has a "thing" quality rather than "person"
b. Audience Perception: relative frequency of subjects and objects which are second-person in nature
c. Self-Perception: relative frequency of subjects and objects of verbs which are first-person personal pronouns.
d. Generalized-Other Perception: relative frequency of those nouns and pronouns that refer to nonspecific other persons or groups of persons
e. Authority-Other Perception: relative frequency of proper nouns which refer to specific persons or groups of persons

Measures of Sensation

a. Sensed Information: relative frequency of subjects and objects that refer to persons, places, or things that can be seen, tasted, smelled, heard, or touched
b. Unsensed Information: relative frequency of subjects and objects of verbs that cannot be sensed
c. Sensed Qualifiers: relative frequency of modifiers referring to qualities or quantities that can be sensed

d. Unsensed Qualifiers: relative frequency of modifiers that cannot be sensed

Measures of Existence

a. Negative Information: relative frequency of subjects and objects of verbs which have a negation such as "no" or a prefix such as "un-" or "dys-"
b. Positive Information: relative frequency of subjects and objects of verbs that have no negation
c. Negative Qualification: relative frequency of qualifiers associated with information units and relations by the use of "no" or "not"
d. Positive Qualification: relative frequency of qualifiers not associated with "no" or "not"
e. Negative Relation: relative frequency of verbs having "not" or certain negating prefixes in the verb phrase
f. Positive Relation: relative frequency of verbs which do not have negative indications in the verb phrase

Measures of Motion

a. Non-Motion Language: relative frequency of verbs or verb phrases which are of the form "to be"
b. Motion Language: relative frequency of all other verbs and verb phrases

Measures of Disposition

a. Disposition Language: relative frequency of verbs that are of the subjunctive mood or in the sentence form of a question
b. Assertion Language: relative frequency of verbs in the indicative mood

Measures of Time

a. Past Time: relative frequency of simple past tense verbs or verb phrases
b. Present Time: relative frequency of simple present tense verbs or verb phrases
c. Future Time: relative frequency of simple future tense verbs or verb phrases

Measures of Symmetry

a. Symmetric Relation: relative frequency of verbs or verb phrases that have an object
b. Asymmetric Relation: relative frequency of verbs or verb phrases that do not have an object

Measures of Conditionality

a. Qualified Information: relative frequency of information units with one or more qualifiers
b. Unqualified Information: relative frequency of information units not associated with qualifiers
c. Qualified Relation: relative frequency of relations associated with one or more quaifiers
d. Unqualified Relations: relative frequency of relations not associated with one or more qualifiers

Variables

The dependent variables in this reaearch were operationalized as the six factors obtained from the Boozer, Lally, and Stacks [1] writing apprehension instrument. Additionally, because of the moderate interfactor correlations, the total test score was also computed and used as a dependent variable. (Because of the diagnostic aspects -- the six factors -- and the identification aspects -- the total items summed -- of the instrument were of interest both diagnostic and identification variables were used.) Because the interfactor correlations were moderate and, because the varimax and oblique rotations yielded the same basic structure, the factors were treated as independent. Scores for each subject were treated as a state variable. In this way the entire range of scores were used to regress the independent variables on. Most research has taken a more trait approach, which uses as its basic distinction the mean apprehension score and then those scoring greater than one standard deviation above or below the mean are scored as high and low writing apprehensive, respectively.

The independent variables in this research were the 36 syntactic choice variables as identified by the SLCA program. Each was entered as a density and ranged in value from 0.00 to a possible 1.00.

Data Analysis

The data were analyzed via a multiple regression procedure, the Maximum R^2 Improvement technique, developed by Goodnight:

> This is a method superior to stepwise regression procedures. This method looks for the "best" one-variable model, then the best two-variable model and so forth. It finds the one-variable model producing the highest R^2 statistic (variance accounted for). Then another variable, the one which would yield the greatest increase in R^2, is added. Once this two-variable model is obtained, each of the variables in the model is compared to each variable not in the model. For each comparison, the procedure determines if removing the variable would increase R^2. The two-variable model thus settled on is considered the "best" two-variable model the technique can find. The technique then adds a third variable to the model, according to the criteria used in adding the second variable. The comparing-and-switching process is

> is repeated, the "best" three-variable model is discovered, and so forth. This technique differs from the STEPWISE technique in that here all switches are evaluated before any switch is made. In the STEPWISE technique, removal of the "worst" variable may be accomplished without consideration of what adding the "best" remaining variable would accomplish. [15, pp. 391-392]

To select the best multiple regression model, the overall F due to regression had to be significant ($p < .05$) and a minimum increase of 1% in R^2 had to occur by the addition of an additional item. All analyses of the relationship between dependent and independent variable were then done by analyzing the beta weights of each predictor in the model [13; 17].

To summarize, the multiple regression models regressed the 36 syntactic language choice measures on the six dimensions of writing apprehension and the total summed measure. Because of the exploratory nature of this research, no specific entry order was included; the independent variable with the highest F-ratio was entered first. Also, because of the exploratory nature of the study, trends ($p \leq .10$) were also analyzed.

RESULTS

Reliability of Measures

Reliabilities for all dependent variables were computed via Chronbach's Coefficient-α [5]. Reliability coefficients for the six factors (using the total sample of 400+ respondents) were: .86 for Factor 1, .87 for Factor 2, .79 for Factor 3, .62 for Factor 4, .66 for Factor 5, and .52 for Factor 6. The low reliabilities for Factors 4, 5, and 6 may be in part a function of the number of items on each factor; two items were tused to compute Factors 4 and 6, while three items were used to compute Factor 5. Since reliability is in part a function of the number of items in the measure and their contributions to explained variance [5], those factors with two or three items would be expected to produce lower reliability coefficients. The reliability coefficient for the total measure was .83.

Predictive Models*

Table 1 summarizes the data and presents the means and standard deviations for each of the Factors and the total summated scale. The mean score for the total measure is approximately mid-point in the scale, suggesting that apprehension scores ranging in the middle of the scale might be considered "average," while those above or below one standard deviation from the mean may represent "high" and "low" apprehensive

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*Summary tables for the multiple regression data for all six factors and the total summated scale are available from the authors.

writers. Mean scores for the other scales (Factors 1 through 6) seem to all fall at or around the mid-point on each scale (see Table 1).

TABLE 1

MEANS AND STANDARD DEVIATIONS

Scale	n	$\bar{X}$	σ	Minimum	Maximum
Total Summed	59	53.39	10.51	24	73
Factor 1	59	18.36	2.68	12	23
Factor 2	59	15.92	2.28	11	21
Factor 3	59	10.81	2.71	5	18
Factor 4	59	5.10	1.57	2	8
Factor 5	59	11.34	2.18	5	15
Factor 6	59	3.11	1.18	2	6

TABLE 2

CORRELATION MATRIX: TOTAL SUMMED AND FACTORS

	Total Summed	Fact1	Fact2	Fact3	Fact4	Fact5	Fact6
Total Summed	1.000	.750	-.584	.667	.028**	.719	-.367
Factor 1		1.000	-.472	-.439	.021**	.652	-.227*
Factor 2			1.000	.342	.142**	-.311	.422
Factor 3				1.000	.060**	-.475	.148**
Factor 4					1.000	-.045**	.230*
Factor 5						1.000	-.258
Factor 6							1.000

Correlations with no star are significant at or beyond the .05 level.
*p < .10
**p > .25

An examination of Table 2 indicates the relationships of each factor to the total test and to each other. The negative relationships to the total summated scale are due to the scoring of the Likert-like statements on a (1) strongly agree to (5) strongly disagree basis. Factors 1 and 5 must be interpreted as the lower the score, the more apprehension or negative attitude is present.

Based on the items loading on each factor from the factor analysis [1], tentative names are provided to help in the analysis. Factor 1

seems to represent a more behavioral manifestation of apprehension and is called, "Blank Page Paralysis." Factor 2 seems to refer to a more general attitude toward writing and is called, "General Affect toward Writing." Factor 3 looks more at the writing of business people and is called, "Positive/Negative Business Affect." Factor 4 dealt with alternative modes of communicating (face-to-face, via telephone) and is entitled just that, "Alternative Modes." Factor 5 seems to stress writing competency and is called, "Attitudes toward Writing Competence." Finally, Factor 6 represents an instrumental attitude, "Attitude toward Professional Writing Skills." The total instrument, the sum of all items found in each subscale is called simply, "Business Writing Apprehension."

TABLE 3

SUMMARY OF SIGNIFICANT
PREDICTOR VARIABLES: BLANK PAGE PARALYSIS

($F = 2.09$, df/12,46, $p < .05$, $R^2 = .35$)

Variable	Beta	p
1. Positive Existential	.394	< .05
2. Negative General-Other Perception	.292	< .05
3. Positive Self Perception	-.243	< .10
4. Positive Audience Perception	-.299	< .05
5. Sensed Information	-.309	< .05
6. Motion Density	.529	< .05
INTERCEPT	12.53	

The multiple regression procedure previously discussed was used to obtain a predictive model of apprehension or attitude toward writing on each factor and the total summed scale. Table 3 summarizes the significant and near-significant findings for the factor, "Blank Page Paralysis."

For Blank Page Paralysis, the best model had 12 variables that accounted for 35% of the variance. The following summarizes the obtained variables and their relationship to Blank Page Paralysis. (Note: For this factor, the lower the score, the greater the Blank Page Paralysis.) The variables are listed in the order of their entry into the multiple regression model.

Variable	Relationship
1. Motion Density	Positive, Linear. As the relative frequency of verbs and verb phrases not of the form "to be" increased, blank page paralysis decreased.

Variable	Relationship
2. Negative Generalized Other Perception	Positive, Linear. As the frequency of nouns or pronouns which refer to negative unspecific other persons increased, blank page paralysis decreased.
3. Pos. Audience Perception	Negative, Linear. As the frequency of proper nouns which refer to specific other positive persons or groups of persons increased, blank page paralysis increased.
4. Positive Existential	Positive, Linear. As the frequency of subjects and objects of verbs that have no negation increased, increased, blank page paralysis decreased.
5 Sensed Information	Negative, Linear. As the frequency of subjects and objects that refer to things, persons, places, and that can be sensed increased, blank page paralysis increased.
6. Positive Self Perception	Negative, Linear. As the frequency of subjects and objects of verbs that are first-person positive pronouns increased, blank page paralysis increased.

TABLE 4

SUMMARY OF SIGNIFICANT
PREDICTOR VARIABLES: GENERAL AFFECT TOWARD WRITING

($F = 2.90$, $df/6,52$, $p < .05$, $R^2 = .25$)

Variable	Beta	p
1. Negative Qualification	.270	< .05
2. Unsensed Qualifiers	-.324	< .05
3. Motion Density	-.434	< .05
INTERCEPT	23.53	

Table 4 summarizes the data for General Affect Toward Writing. The best model had six variables that accounted for 25% of the variance. The following summarizes the obtained variables and their relationship to attitudes toward writing in general. (For this factor, the higher the score, the more negative the attitude is toward writing in general).

Variable	Relationship
1. Negative Qualification	Positive, Linear. As the frequency of qualifiers associated with information units and relations by the use of "no" or "not" increased, the less positive the attitude toward writing.

Variable	Relationship
2. Motion Density	Negative, Linear. As the frequency of verbs and verb phrases increased, the more positive the attitude toward writing.
3. Unsensed Qualifier Density	Negative, Linear. As the frequency of modifiers that cannot be sensed increased, the more positive the atttitude toward writing.

TABLE 5

SUMMARY OF SIGNIFICANT
PREDICTOR VARIABLES: POSITIVE/NEGATIVE BUSINESS AFFECT

($F = 5.35$, $df/9,49$, $p < .05$, $R^2 = .50$)

Variable	Beta	p
1. Negative Qualification	-.439	< .05
2. Positive Relational Density	-.411	< .05
3. Positive General-Other Perception	-.266	< .05
4. Positive Self Perception	.276	< .05
5. Non-Motion Language	.294	< .05
INTERCEPT	5.95	

Table 5 summarizes the data for Positive/Negative Business Affect. The best model had nine variables that accounted for 50% of the variance. The following summarizes the obtained variables and their relationships to writing in a business context. (For this factor, the higher the score, the more negative the attitude toward business writing.)

Variable	Relationship
1. Negative Qualification	Negative, Linear. As the frequency of qualifiers associated with "no" or "not" increased, the more positive the attitude toward business writing.
2. Positive General-Other Perception	Negative, Linear. As the frequency of nouns and pronouns which refer to positive unspecific other persons or groups of persons increased, the more positive the attitude toward business writing.
3. Positive Relational Density	Negative, Linear. As the frequency of verbs which do not have negative indications in the verb phrase increased, the more positive the atttiude toward business writing.

Variable	Relationship
4. Positive Self Perception	Positive, Linear. As the frequency of subjects and objects of verbs that are first-person positive personal pronouns increased, the more negative the attitude toward business writing.
5. Non-Motion Language	Positive, Linear. As the frequency of verbs or verb phrases of the form "to be" increased, the more negative the attitude toward business writing.

No significant multiple regression was obtained for Factor 4, Alternative Modes ($F = 2.42$, $df/1,57$, $p > .05$, $R^2 = .04$)

TABLE 6

SUMMARY OF SIGNIFICANT
PREDICTOR VARIABLES: ATTITUDE TOWARD WRITING COMPETENCE

($F = 2.32$, $df/11,47$, $p < .05$, $R^2 = .35$)

Variable	Beta	p
1. Perceptual Cognitive Activity	.221	< .10
2. Pos. Audience Perception	-.262	< .05
3. Motion Density	.426	< .05
4. Past Time Density	-.307	< .05
INTERCEPT	4.26	

Table 6 summarizes the data for Attitude toward Writing Competence. The best model had eleven variables that accounted for 35% of the variance. The following summarizes the obtained variables and their relationships to attitudes toward writing competence. (For this factor, the higher the score, the more competent is the perception of writing ability.)

Variable	Relationship
1. Perceptual Cognitive Activity	Positive, Linear. As the total amount of informative units, qualitative-quantitative units, and relations increased, so too did perceptions of writing competence.
2. Pos. Audience Perception	Negative, Linear. As the frequency of proper nouns which refer to specific other positive persons or groups of persons increased, perception of writing competence decreased.

Variable	Relationship
3. Motion Density	Positive, Linear. As the frequency of verbs and verb phrases increased, so too did the perception of writing competence.
4. Past Time Density	Negative, Linear. As the frequency of simple past tense verbs or verb phrases increased, perception of writing competence decreased.

TABLE 7

SUMMARY OF SIGNIFICANT
PREDICTOR VARIABLES: ATTITUDE TOWARD PROFESSIONAL WRITING SKILLS

($F = 3.16$, $df/7,51$, $p < .05$, $R^2 = .30$)

Variable	Beta	p
1. Negative Relational Density	.339	< .05
2. Positive Self Perception	-.229	< .10
3. Neg. Audience Perception	-.332	< .05
4. Sensed Qualifiers	-.256	< .05
INTERCEPT	4.26	

Table 7 summarizes the data for Attitude toward Professional Writing Skills. The best model had seven variables that accounted for 30% of the variance. The following summarizes the obtained variables and their relationships toward professional writing skills. (For this factor, the higher the score, the more negative the attitude toward professional writing skills.)

Variable	Relationship
1. Neg. Audience Perception	Negative, Linear. As the frequency of subjects and objects of verbs which are second-person in nature and perceived negatively increased, so too did attitudes toward professional writing skills.
2. Negative Relational Density	Positive, Linear. As the frequency of verbs having "not" or other negating prefixes increased, attitude toward professional writing skills decreased.
3. Positive Self Perception	Negative, Linear. As the frequency of subjects and objects of verbs that are first-person positive personal pronouns increased, attitude toward professional writing skills increased.

Variable	Relationship
4. Sensed Qualifiers	Negative, Linear. As the frequency of modifiers referring to qualities or quantities which can be sensed increased, attitude toward professional writing skills increased.

TABLE 8

SUMMARY OF SIGNIFICANT
PREDICTOR VARIABLES: BUSINESS WRITING APPREHENSION

($F = 3.16$, $df/9,49$, $p < .05$, $R^2 = .37$)

Variable	Beta	p
1. Negative Qualification	-.338	< .05
2. Neg. Authority Perception	-.222	< .10
3. Motion Density	-.453	< .05
4. Conditional Density	-.291	< .05
5. Past Time Density	.403	< .05
INTERCEPT	53.52	

Table 8 summarizes the data for general business writing apprehension. The best model had nine variables that accounted for 37% of the variance. The following summarizes the obtained variables and their relationsnips toward business writing apprehension. (For this analysis, the higher the score, the more apprehension.)

Variable	Relationship
1. Negative Qualification	Negative, Linear. As the frequency of qualifiers associated with information units and relations by the use of "no" or "not" increased, reported writing apprehension decreased.
2. Motion Density	Negative, Linear. As the relative frequency of verbs and verb phrases not of the form "to be" increased, reported writing apprehension decreased.
3. Past Time Density	Positive, Linear. As the frequency of simple past tense verbs and verb phrases increased, reported writing apprehension increased.
4. Conditional Density	Negative, Linear. As the frequency of verbs that are of the subjunctive mood or are in the sentence form of a sentence increased, reported writing apprehension decreased.

Variable	Relationship
5. Neg. Authority Perception	Negative, Linear. As the frequency of proper nouns which refer to specific other negative persons or groups of persons increased, reported writing apprehension decreased.

DISCUSSION

The results of this investigation offer strong support for both a multidimensional model of writing apprehension and the impact that syntactic choice has on an individual's perceptions of writing apprehension. In many cases the syntactic densities appeared to address common sense interpretations. People who use passive voice, rather than active voice, for example, are more apprehensive about writing across a number of factors. But most important, as an initial test of the multidimensional model, is the finding that the instrument does seem to identify those who are writing apprehensive and provide diagnostic areas for further examination. Obviously, some refinement in the instrument is still needed, but the amount of variance accounted for by the predictor variables -- syntactic choices -- ranged from .30 to .56, accounting for fairly large portions of the variance explained.

An examination of the instrument suggests that not all of the factors were perceived similarly. The factor dealing with alternative approaches to writing failed to yield a significant multiple regression model. This should have been expected, given the nature of the writing assignment which was a business letter and provided no other outlet for communication. Also, the type of letter, the "no" letter, may have provided some interesting results in of itself. As noted by Faigley, Daly, and Witte [14], the type of writing assignment influences both apprehension and syntactic choice. In this case, however, it would seem that writers who have less apprehension toward business writing (as measured by Factor 3), who have a positive attitude toward their professional writing skills (as measured by Factor 6), and who score low on the total writing apprehension instrument use more negative qualification. This finding is interesting since the assignment should have produced less negation and more positive qualification (or, it may be that less apprehensive writers worry less about following directions because they feel their writing skills will be able to carry them through any writing assignment).

Looking at the predictor variables and their clustering by major qualities of language indicates that different factors produced different clustering. Of the eight language qualities (social perception, sensation, existence, motion, disposition, time, symmetry, and conditionality), seven produced one or more significant predictor variables. As might be expected for the total summed instrument, the five variables predicting general writing apprehension came from five different qualities (existence, social perception, motion, time, and conditionality). For the subscales, however, the predictors seemed to group themselves in several cases. For Blank Page Paralysis (Factor 1) three of the six predictors grouped on measures

of social perception. For Positive/Negative Business Affect (Factor 3) two of the five predictors grouped on measures of existence and two on social perception. Social Perception again was the grouping area for Attitudes toward Professional Writing Skills (Factor 6). For General Affect toward Writing (Factor 2) and Attitude toward Writing Competence (Factor 5), the predictors did not group but were found across qualities. This, like that of the total summed instrument, may reflect the more general nature of the areas while the more specific factors (specific in targeting of the problem) produced grouping.

The importance of these findings underlies the general nature of the development of the instrument. Concern at the time of creation was divided in two areas: the identification of writing apprehension and the problem that both logic and other research [e.g., 2; 3; 4] seemed to suggest a multidimensional rather than unidimensional treatment of the construct. The results of this investigation lend strong support for the multidimensional treatment of writing apprehension. That the total instrument (1) predicted writing apprehension as related to different syntactic qualities, (2) that it correlated highly with the factors obtained, and (3) found a specific dimension for "business writing" provides both strong identification and diagnostic capabilities. Based on this bifurcation, it may be possible to assess total writing apprehension as held by an individual and then, based on subscale scores diagnose where attention should be placed. It may be that one or two subscales yield the problem areas; simple exercises to attack both the behavioral (instrumental) and cognitive (attitudinal) problems can then be administered.

Although the results of this research are encouraging, they also point out that further research and refinement is needed. Specifically, the addition of statements on those factors possessing only two or three items may increase their reliability and make interpretation easier [c.f., 1]. There needs to be research undertaken that further refines the relationship between oral and written apprehension. And, finally, self-concept and the discrepancy between idealized and actualized self-concept needs to be examined in more detail. As Stacks and Stone [19; 20] noted, the self-concept and the discrepancy between actual and idealized self-concept plays a major factor in predicting oral communication apprehension. It should also play a major factor in writing apprehension; some of the predictor variables found in this study seem to imply that writer self-concept may play a major function in both assessment and treatment of writing apprehension.

In summary, this research has lent strong support to the multidimensional representation of writing apprehension. It has also supported the earlier research on the effect of syntactic choice and apprehension and extended that research significantly. In all cases the relationships between writing apprehension and individual factors were linear, suggesting that treatments should examine ways to either decrease or increase particular syntactic choice and use.

The results of syntactic predictors yielded a number of findings. Factor 1, Blank Page Paralysis, was predicted primarily by syntactic variables reflecting social perception (negative other perception, positive

self perception, and positive audience perception) along with use of positive information, sensed information, and motion language. Factor 2, General Writing Affect, was predicted by three variables: negative qualification, unsensed qualifiers, and motion language. Factor 3, Positive/Negative Business Affect, was found to be predicted by variables grouped in two areas: existence (negative qualification and positive relational density) and social perception (positive generalized other perception and positive self perception), along with non-motion language. Factor 5, Attitude toward Writing Competence, positive audience perception, motion language, past time tense use, and the total perceptual cognitive activity were the significant syntactic predictors. Factor 6, Attitude toward Professional Writing Skills, was predicted by social perception (positive self perception and negative audience perception), negative relational density, and defined relational density.

The identification of people who are writing apprehensive in general crossed quality/syntactic areas. Apprehension was predicted by negative qualification, negative audience perception, use of motion language (active voice yielding less apprehension), past time tense, and conditionality (conditionality being associated with less apprehension).

These findings suggest that writing apprehension can be identified and diagnosed. They further suggest that syntactic language choice is one predictor of apprehension across at least five of the six dimensions found to correlate with writing apprehension. Future research needs to refine the instrument and expand its use to other types of writing (reports, speeches, etc.) and examine its relationship to other related constructs.

APPENDIX A

INSTRUMENT

INSTRUCTIONS: Below are a series of statements about writing. There are no right or wrong answers to these statements. Please indicate the degree to which each statement applies to you by marking wither you (1) strongly agree, (2) agree, (3) neither agree nor disagree, (4) disagree, or (5) strongly disagree with the statement. Record the number of your response in the space provided next to the statement (that is, whether or not you strongly agree through strongly disagree with that statement; if, for example, you agreed with the statement, you would place a 2 in the space next to it). Thank you for your cooperation.

FACTOR 1: "Blank Page Paralysis"

1. My mind seems to go blank when I start to work on a composition.
2. I never seem to be able to clearly write down my ideas.
3. I find it difficult to organize my thoughts on paper.
4. I have a terrible time organizing my ideas in a composition course.
5. I'm nervous about writing.

FACTOR 2: "General Affect Toward Writing"

1. I enjoy writing.
2. I like to write my ideas down.
3. Writing is a lot of fun.
4. I look forward to writing down my ideas.
5. I like seeing my thoughts on paper.

FACTOR 3: "Positive/Negative Business Affect"

1. I think I would enjoy all types of business writing.
2. I would enjoy writing sales letters to customers.
3. I would enjoy writing letters to job applicants inviting them for an interview.
4. I would enjoy writing a sales letter to a new customer.

FACTOR 4: "Alternative Modes"

1. I would prefer to telephone a customer rather than write a customer a letter.
2. I would not write a letter to someone if I could talk to them face-to-face.

FACTOR 5: "Attitude Toward Writing Competence"

1. My boss would probably have to edit my letters.
2. I would have a difficult time writing clear policies and proceedures.

3. I depend on others to correct problems in my writing.

FACTOR 6: "Attitudes Toward Professional Writing Skills"

1. Good writing skills are essential in today's business world.
2. My writing skills will be a valuable asset in my profession.

APPENDIX B

WRITING ASSIGNMENT

Student ID_____

As assistant head of the children's clothing department in the Capitol Department Store, you were in charge of the department's annual half-price sale. This is a very popular sale where excellent children's clothing can be purchased at the end of the summer season for half price. There are a few procedures: (1) no merchandise can be returned for any reason, (2) all sales are cash, (3) alterations must be paid for, (4) no gift wraps.

Mrs. Harriet Semone is a long-term customer of Capitol and she purchased a sun dress for a grandchild. She sent the dress to her grandchild and it has been returned to her because the dress is about two sizes too small. Mrs. Semone phones you and asks, as a special favor, if you will take the dress back. You review the procedures with her, relate your concern, but clearly state that you cannot accept the dress. Mrs. Semone gets a bit angry and says, "I'll take it up with your boss!" Your superior, Ms. Bitgood, receives the phone call and the dialogue goes about the same. However, this time Mrs. Semone says she will write the manager of the department store. A few weeks later you get a note from Mr. Higenbottom, the manager, with Mrs. Semone's letter attached. Higenbottom's note says, "Please respond to Mrs. Semone." Higenbottom believes in delegating and letting each department handle its own problems. You were in charge of the sale and the procedures; write the letter to Mrs. Semone.

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